

to 20 cm., and the reduction of the number of petals from fifteen to nine in the bloom which came two years later from the same rootstock.

**New and Noteworthy Northwestern Plants—Part 9,
Notes on North American *Thermopsis***

HAROLD ST. JOHN

Thermopsis montana Nutt. var. *ovata* (B. L. Robinson) St. John, comb. nov.

T. montana ovata subsp. B. L. Robinson ex Piper, U. S. Nat. Herb., Contrib. 11: 349–350, 1906.

T. xylorrhiza A. Nelson, Bot. Gaz. 52: 265–266, 1911.

T. ovata (Robins.) Rydberg, Torrey Bot. Club, Bull. 40: 43, 1913.

The writer has once previously studied the stout *Thermopsis* with broad elliptic leaflets growing in Idaho and Washington, and has published the conclusion that there was only one species present, *T. montana*, and that the subsp. *ovata* was a synonym of the species (St. John, Fl. S. E. Wash. 233–234, 1937).

M. M. Larisey has recently published a revision of the North American species of *Thermopsis* (Mo. Bot. Gard., Ann. 27: 245–258, 1940). She accepts both *montana* and *ovata* as species, keys them and describes them. She accepts as valid *T. ovata* (Robins.) Rydb. (1913) while listing as its synonym *T. xylorrhiza* A. Nels. (1911). This name of Nelson's, which should be spelled as it was in the original publication, *T. xylorrhiza*, was the first one published in the category. Hence, this name should be adopted if the plant is accepted as a species. When studying the problem at Pullman, Wash., the writer had available abundant collections from the Pacific Northwest, including an isotype of *T. montana* subsp. *ovata*. Now, at the Gray Herbarium, he has similar collections, the type of the subspecies, as well as large collections of *T. montana* Nutt. from the Rocky Mountains and the Nuttall type specimen. An isotype specimen of *T. xylorrhiza* is also available. It is now evident that the true *T. montana* Nutt. of the central and eastern Rocky

Mountains is a plant with narrow leaflets, different from anything in the Pacific Northwest. Rydberg maintained three species in this group (Fl. Rocky Mts. 456, 1917), *T. montana*, *T. ovata*, and *T. xylorrhiza* (= *T. xylorrhiza*). When Rydberg made the specific combination, *T. ovata* (Torrey Bot. Club, Bull. 40: 43, 1913), besides the evident broader leaflets and stipules, separating *ovata* from *montana*, he alleged that it differed also in having its leaves spreading, the lower leaves (= leaflets) very oblique, and in its elongate, lax raceme. It was said to differ from *T. xylorrhiza* in its lax inflorescence and strictly straight pods. These characters have been checked, and the writer finds no differences in the posture of the leaves, the obliqueness of the lower leaflets, the length and laxity of the inflorescence, and the straightness of the pods. Frankly, these alleged characters seem imaginary. Later, Rydberg (Fl. Rocky Mts. 456-457, 1917) described differences in the length of the flowers. The writer finds no such differences.

Larisey (p. 247) keys *T. ovata* as having leaflets obovate to broadly elliptic, and *T. montana* as having leaflets linear. Thus stated, the characters are strongly contrasting. Checking these against the specimens, it is obvious that *ovata* has the leaflets very much as described, that is from elliptic to oblanceolate or obovate. On the other hand, *montana* has the leaflets from narrowly elliptic to narrowly oblanceolate. In the original description Nuttall ex Torrey and Gray said "leaflets lanceolate, narrowed at the base," which is exactly our modern term oblanceolate. In her description (p. 253) Larisey says "leaflets linear to linear-lanceolate," while in the key (p. 247) she distinguishes the plant solely by "Leaflets linear." Quibbling over the exact meaning and application of descriptive morphological terms is usually unprofitable, but if any such term is clearly defined and identical in use, it is the term linear. The illustrations are similar and the definitions of it are exact equivalents in Lindley's Introduction to Botany and in Gray's Lessons in Botany. Linear is a narrow shape with the sides parallel. Neither the old Nuttall type specimen nor any of the abundant recent collections show any linear leaflets. This point has been discussed in detail, because any student who cannot verify the type specimens will be misled by Larisey's key.

Now, consider the taxonomic status of *T. ovata*. As defined and characterized by its broader leaflets and stipules, it seems at first

glance well separated. It occurs in Washington, Oregon, and Idaho. *T. montana*, with its narrow and seemingly more erect leaflets and stipules also has a recognizable aspect. It occurs from Idaho and Montana to Colorado and Utah. The two ranges touch each other. There are, however, specimens with the leaflet and stipule shape and size intermediate between the two groups. Such ones are Oregon, E. Hall 83; Idaho, Lolo Trail, Watson 76; Idaho, Falks Store, Macbride 800 and 99. The last specimen is the type of *T. xylorhiza*. The existence of these intermediates breaks down, it seems, any specific lines. Aside from breadth of leaflet and stipule, there are no other characters. The ranges are largely distinct, but they touch. Hence, the two plants seem most truly classified as a species and a variety.

Thermopsis pinetorum Greene in its original description was said to have "pods . . . pubescent or strigulose". Larisey (p. 252) cites the specimen, Arizona, Chiricahua Mts., Blumer 1590. This is in fruit. The pods are densely villous, except where the exocarps has been worn off. Larisey keys this species (p. 245) under, "Pods glabrate" and so describes it. Her treatment seems at variance with the fruiting material seen and the original description.

On page 252 Larisey publishes the name *Thermopsis pauciflora* Thornber ined. In the first place she does it in synonymy, which makes the name invalid. In the second place the printing of such rejected manuscript names causes a cluttering up of nomenclature. This practice is directly interdicted by the International Botanical Rules (Rec. XXII, Cambridge, 1935).

Baptisia mollis (Michx.) Nutt., Gen. N. Am. Pl. 1: 281, 1818, was not republished as new by De Candolle (Prodr. 2: 100, 1825) who merely included Nuttall's species, attributed it to him, and gave the reference. Larisey (p. 248) lists this non-existent *B. mollis* (Michx.) DC. as a synonym of *Thermopsis mollis* (Michx.) M. A. Curt., while lower down on the same page she lists *B. mollis* (Michx.) Nutt. which is based on the same name-bringing synonym *Podalyria mollis* Michx., as a synonym of *T. fraxinifolia* (Nutt.) M. A. Curt. It is obvious that *B. mollis* cannot be a synonym of *T. fraxinifolia* as it is the ultimate basis of *T. mollis*.

Thermopsis fabacea (Pall.) DC., Prodr. 2: 99, 1825.

Sophora fabacea Pall., Sp. Astragal. 122-123, t. 90, fig. 2, 1800.

T. fabacea (Pall.) DC. was listed by Torrey as the name for This was a misidentification, and there is no indication that the certain Californian collections (Bot. Mex. Boundary 58, 1859). binomial was being published as a combination by DC. ex Torr., as stated by Larisey (p. 255). The Asiatic *T. fabacea* resembles *T. montana* var. *ovata*, but is certainly a different species because it has the legumes longer stipitate with the stipes often exerted, the calyx silky villous, and the leaflets larger and broader.

T. fabacea (Pall.) DC. is restricted to northeastern Asia, *i.e.*, from Kamtchatka, the Kurile Islands, and south to the Liu Kiu Islands and Fukien (fide Hultén, Fl. Kamtchatka, 3: 93-95, 1929).

If *T. fabacea* (Pall.) DC. ex Hooker (Fl. Bor.-Am. 1: 128, 1838) is really, as cited by Larisey (p. 253), a synonym of *T. montana* Nutt. (1840), it would have to be adopted as the earliest name. However, Hooker's treatment was actually printed in 1830 (not 1838), but *T. fabacea* was not there published as new. Hooker credited it to the real author of the combination, De Candolle. Hooker's use of the name was only a misidentification of the plant of northwestern North America with the one of northeastern Asia, and he should not be credited with making a synonym. Hence, *T. montana* Nutt. and its var. *ovata* (B. L. Robins.) St. John should be accepted as the correct names for the related American plants.

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Does *Ficinia filiformis* Still Live in Jersey City?

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Recent examination of a specimen collected by the late Judge Addison Brown, September 20, 1880, "from ballast, near Communipaw Ferry, N. J." (the present Liberty Street ferry-landing and terminal of the Central Railroad of New Jersey, in Jersey City), shows it to be *Ficinia filiformis* Schrad., a native of the Cape